

# NAMAN YESHWANTH KUMAR

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## EDUCATION

### Master of Science

Arizona State University - Computer Eng (GPA 3.8/4.0)

Expected: May 2026

Tempe, AZ

- Relevant course work: VLSI, Foundations of Algorithms, Reinforcement Learning in Robotics, Artificial Intelligence, Perception in Robotics, Hardware Co-design, SoC Design, Advanced Computer Architecture

### Nanodegree - Self-Driving Car Engineer

February 2023

Udacity

- Key Areas: Machine Learning, Sensor Fusion, Computer Vision, Path Planning, and Control, with hands-on projects in object detection, trajectory tracking, and autonomous vehicle motion

### Bachelor of Engineering

BMS College of Engineering - Electrical and Electronics Eng

June 2022

Bengaluru, India

## TECHNICAL SKILLS

**Systems Programming:** C++ | Python | System Architecture | Software Infrastructure | Performance Optimization | Profiling | Benchmarking

**Autonomous Systems:** ROS 2 | Sensor Fusion | Path Planning | Computer Vision | Perception | LiDAR | Multi-platform Deployment

**Software Engineering:** Docker | Git | CI/CD Pipelines | AWS | Asynchronous Programming | API Design | Distributed Systems

**Robotics & AI:** Machine Learning | TensorFlow | PyTorch | Reinforcement Learning | Simulink | CoppeliaSim | MATLAB

**Tools & Hardware:** Linux | Shell Script | ARM | Raspberry Pi | Arduino | Database (SQL) | Data Analytics

## WORK EXPERIENCE

### Software Developer

NCR GOLD

October 2022 - April 2024

Bengaluru, India

- Designed and deployed a custom ordering platform (Django) to streamline inventory and billing for a wholesale jewelry business; processed 10,000+ orders to improve efficiency.
- Containerized applications using Docker and integrated AWS cloud deployment, providing scalable performance and seamless updates.

### Research Intern

Indian Institute of Science

October 2021 - August 2022

Bengaluru, India

- Led the Propulsion Circuit Team, optimizing a 1.5kW axial flux BLDC motor with Ansys Maxwell; boosted efficiency and responsiveness by upgrading material and coil designs and implementing a new FOC system.
- Conducted advanced research on speed control algorithms and battery management systems for eVTOL aircraft leveraging Simulink, contributing to notable improvements in efficiency and reliability of aircraft propulsion systems.

## PROJECT EXPERIENCE

### Trezzit - Full Stack Bill Splitting Application

February 2025 - Present

- Engineered Trezzit, a full-stack expense management application that solves the dual challenges of intuitive item-wise bill splitting and integrated personal finance tracking using AI-powered categorization.
- Managed the complete project lifecycle, acquiring and supporting an initial beta community of 120+ active users from the ASU student body.
- Currently leading the next phase of growth, focused on scaling the user base to 1,000 members on campus by leveraging iterative development and community feedback. Tech Stack: Django | React | Google Generative AI (Gemini) | Material-UI | Docker

### Intel Automated Self-Checkout (Open Source Contributor)

January 2025 - February 2025

- Developed C++ performance-critical modules for LiDAR sensor data processing in autonomous systems; optimized algorithms achieving 3x throughput improvement in real-time point cloud analysis through profiling and benchmarking.
- Architected Python framework with asynchronous APIs for sensor fusion and object detection; implemented CI/CD pipelines using Docker, collaborating with distributed engineering team following production software development best practices.

### Raspberry Pi Self-Driving Car

February 2022 - July 2022

- Developed an autonomous vehicle using Raspberry Pi and Arduino, featuring lane detection, traffic sign recognition, and seamless integration via the I2C communication protocol.
- Streamlined data collection and neural network training with a Bluetooth joystick mode in a collaborative team effort; project received the Best Project Award in the EEE Department among approximately 40 submissions.

## AWARDS & HONORS

- Won the 'Best Use of AI' award at Strategy X DevHacks'25 at ASU for developing AdaptED AI, a platform leveraging Google's Gemini AI to generate personalized learning paths and resources for students.
- Secured second place in the Hack SoDA 2024 at ASU with a team of four, developing PassGen, a secure and offline Chrome Extension for generating unique passwords, during a 24-hour hackathon sponsored by Amazon.
- Ranked among the Top Ten teams in the e-Yantra national-level robotics competition organized by IIT Bombay, for designing and developing a self-balancing dairy bike on CoppeliaSim, February 2022.